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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,464	10/07/2005	Kozo Murao	279302US0PCT	2239

22850 7590 01/22/2007
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

LISTVOYB, GREGORY

ART UNIT	PAPER NUMBER
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1711

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/552,464	Applicant(s) MURAO ET AL.	
	Examiner Gregory Listvoyb	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: <u>4/27/2004</u> 10-7-05 | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

Claims 1 and 3-4 rejected under 35 U.S.C. 102(a) and 102(b) as being anticipated by Hwang et al (Biotransformation of Acrylonitrile, Biotechnology and Bioengineering, vol 34 pp380-386 (1989)), herein Hwang.

Hwang discloses a method for producing an acrylamide polymer comprising hydrating of acrylonitrile (ACN) with following enzymatic conversion of ACN to acrylamide and polymerizing monomers containing the acrylamide (p.381-382).

The enzymatic method carried out using microbial cells as a catalyst (p.381).

Limitations of Claims 1 and 4 regarding oxazole and hydrogen cyanide are noticed. However, language of Claims ("less than") does not exclude a case where the above reagents do not present in the reaction mixture.

Claims 1 -4 rejected under 35 U.S.C. 102(b) as being anticipated by Murao et al (WO 02/50297 and US publication 2004/0048348) herein Murao.

Murao discloses a process for producing an amide compound from a nitrile compound by action of nitrile hydratase (Claim 1).

Regarding Claim 2, the reaction is carried out until the concentration of acrylamide in a reaction solution becomes 50% (Examples 5 to 7 column 6, line 50).

Claims 1 -4 rejected under 35 U.S.C. 102(b) as being anticipated by Ishii et al (US patent 6043061) herein Ishii.

Ishii discloses a process for producing an amide compound from a nitrile compound by action of nitrile hydratase (Claim 1).

Regarding Claim 2, the reaction is carried out until the concentration of acrylamide in a reaction solution becomes 45% (Page 4, line 0072).

Claims 1 and 3-4 rejected under 35 U.S.C. 102(b) as being anticipated by Oriel et al (US patent 6228633).

Oriel discloses a method for producing an acrylamide polymer comprising hydrating of acrylonitrile (ACN) with following enzymatic conversion of ACN to acrylamide and polymerizing monomers containing the acrylamide (Examples 3-5, column 18).

Double Patenting

Claims 1 and 3-4 rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-10 of prior U.S. Patent No. 6043061 (Ishii et al). This is a double patenting rejection.

Ishii discloses a process of producing an amide compound from nitrile compound with enzymatic catalyst, where nitrile compound is acrylonitrile.

Hydrogen cyanide concentration is less than 0.5 mg/kg.

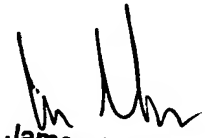
Claims 1 and 3-4 provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4 of copending Application No. 10450532. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Listvoyb whose telephone number is (571) 272-6105. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory Listvoyb
Examiner
Art Unit 1711



James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700

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